CLAIMS

What is claimed is:

1) A computer system operation method for use with a system for displaying representations of objects, the method comprising:

displaying a representation of an object;

displaying an annotation for the object, said annotation including a leader line connecting the annotation to the object;

receiving input from a user specifying movement of said leader line;

calculating a trace of possible placement points for attachment of the leader line to the object; and

displaying said trace.

2) The computer system operation method of claim 1, wherein the method further comprises:

receiving input from a user specifying a new location for the leader line; and

displaying the leader line in said new location.

3) The computer system operation method of claim 1, wherein the method by which the user specifies movement of the leader comprises:

placing a cursor over the leader line, clicking a mouse, and moving the cursor to a new location.

4) The computer system operation method of claim 1, wherein said calculation comprises:
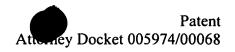
retrieving stored data containing standards-based rules pertaining to the type of said annotation; and

determining from said data whether the trace should be modified based on said data, and if so, modifying said trace based on said data.

5) A computer system operation method for use with a system for displaying representations of objects, the method comprising:

displaying a representation of an object;

displaying an annotation for the object;

receiving input from a user specifying movement of said object to a new location;

displaying said object in said new location;

calculating a new location for said annotation such that the spatial relationship between the object and the annotation remains the same as before movement of the object; and

displaying said annotation in said new location.

6) A computer system operation method for use with a system for displaying representations of objects, the method comprising:

displaying a representation of an object;

receiving input from a user specifying the placement of an annotation in a given plane with respect to said object;

determining the type of said annotation, and retrieving annotation placement rules information stored in said system pertaining to said type of annotation; and

determining from said retrieved information whether the plane chosen by the user for said annotation is consistent with said retrieved information.

7) The computer system operation method of claim 6, the method further comprising:

notifying the user that the chosen plane is not consistent with said retrieved information in the event that the system determines that the plane chosen by the user for said annotation is not consistent with said retrieved information.

8) The computer system operation method of claim 6, the method further comprising:

calculating at least one annotation plane for said annotation consistent with said retrieved information, in the event that the system determines that the plane

chosen by the user for said annotation is not consistent with said retrieved

information; and

displaying said at least one annotation plane.

9) A CAD/CAM apparatus comprising:

an input device;

a central processing unit; and

a display device;

wherein the central processing unit runs an application program comprising code

for causing the apparatus to:

display a representation of an object;

display an annotation for the object, said annotation including a leader line

connecting the annotation to the object;

receive input from a user specifying movement of said leader;

calculate a trace of possible placement points for attachment of the leader line to
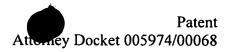
the object; and

display said trace.

10) The CAD/CAM apparatus of Claim 9, wherein the application program further

comprises code for causing the apparatus to:

receive input from a user specifying a new location for the leader line; and

display the leader line in said new location.

11) The CAD/CAM apparatus of Claim 9, wherein the application program further

comprises code allowing the user to specify movement of the leader line by a

method comprising:

placing a cursor over the leader line, clicking a mouse, and moving the cursor to a

new location.

12) The CAD/CAM apparatus of Claim 9, the application program further comprising

code for causing the apparatus to:

retrieve stored data containing standards-based rules pertaining to the type of said annotation; and

determine from said data whether the trace should be modified based on said data, and if so, modify said trace based on said data.

13) A CAD/CAM apparatus comprising:

an input device;

a central processing unit; and

a display device;

wherein the central processing unit runs an application program comprising code for causing the apparatus to:

display a representation of an object;

display an annotation for the object;

receive input from a user specifying movement of said object to a new location;

display said object in said new location;

calculate a new location for said annotation such that the spatial relationship between the object and the annotation remains the same as before movement of the object; and

display said annotation in said new location.

14) A CAD/CAM apparatus comprising;

an input device;

a central processing unit; and
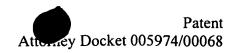
a display device;

wherein the central processing unit runs an application program comprising code for causing the apparatus to:

display a representation of an object;

receive input from a user specifying the placement of an annotation in a given plane with respect to said object;

determine the type of said annotation, and retrieve annotation placement rules information stored in said system pertaining to said type of annotation; and

determine from said retrieved information whether the plane chosen by the user for said annotation is consistent with said retrieved information.

15)   The CAD/CAM apparatus of claim 14, the application program further comprising code for causing the apparatus to:

notify the user that the chosen plane is not consistent with said retrieved information, in the event that the system determines that the plane chosen by the user for said annotation is not consistent with said retrieved information.

16)   The CAD/CAM apparatus of claim 14, the application program comprising code for causing the apparatus to:

calculate at least one annotation plane for said annotation consistent with said retrieved information, in the event that the system determines that the plane chosen by the user for said annotation is not consistent with said retrieved information; and

display said at least one annotation plane.

17)   A computer data signal embodied in a digital data stream comprising data representing the physical configuration of an object, data representing an annotation and a leader line, and data representing a trace, wherein said data stream is generated by a system operating according to a method comprising:

displaying a representation of said object;

displaying said annotation for said object, said annotation including a leader line connecting the annotation to the object;

receiving input from a user specifying movement of said leader line;

calculating a trace of possible placement points for attachment of the leader line to the object; and

displaying said trace.

18)   The computer data signal embodied in a digital data stream of claim 17, wherein said calculation comprises:

retrieving stored data containing standards-based rules pertaining to the type of said annotation; and

determining from said data whether the trace should be modified based on said data, and if so, modifying said trace based on said data.

19) A computer data signal embodied in a digital data stream comprising data representing the physical configuration of an object, and data representing an annotation and a leader line, wherein said data stream is generated by a system operating according to a method comprising:

displaying a representation of an object;

displaying an annotation for the object;

receiving input from a user specifying movement of said object to a new location;

displaying said object in said new location;

calculating a new location for said annotation such that the spatial relationship between the object and the annotation remains the same as before movement of the object; and

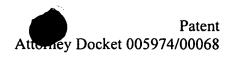displaying said annotation in said new location.

20) A computer data signal embodied in a digital data stream comprising data representing the physical configuration of an object, and data representing an annotation and a leader line, wherein said data stream is generated by a system operating according to a method comprising:

displaying a representation of an object;

receiving input from a user specifying the placement of an annotation in a given plane with respect to said object;

determining the type of said annotation, and retrieving annotation placement rules information stored in said system pertaining to said type of annotation; and

determining from said retrieved information whether the plane chosen by the user for said annotation is consistent with said retrieved information.

21) The computer data signal embodied in a digital data stream of claim 20, wherein the method further comprises:
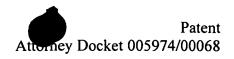
notifying the user that the chosen plane is not consistent with said retrieved information, in the event that the system determines that the plane chosen by the user for said annotation is not consistent with said retrieved information.

22) The computer data signal embodied in a digital data stream of claim 20, wherein the method further comprises:

calculating at least one annotation plane for said annotation consistent with said retrieved information, in the event that the system determines that the plane chosen by the user for said annotation is not consistent with said retrieved information; and

displaying said at least one annotation plane.

23) Computer executable code stored on a computer readable medium, the code comprising means for causing a computer to take steps comprising:

displaying a representation of an object;

displaying an annotation for the object, said annotation including a leader line connecting the annotation to the object;

receiving input from a user specifying movement of said leader line;

calculating a trace of possible placement points for attachment of the leader line to the object; and

displaying said trace.

24) Computer executable code stored on a computer readable medium according to claim 23, said code further comprising means for causing a computer to take steps comprising:

receiving input from a user specifying a new location for the leader line; and

displaying the leader line in said new location.

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25) Computer executable code stored on a computer readable medium according to claim 23, said code further comprising means for causing a computer to take steps comprising:

retrieving stored data containing standards-based rules pertaining to the type of said annotation; and

determining from said data whether the trace should be modified based on said data, and if so, modifying said trace based on said data.

26) Computer executable code stored on a computer readable medium, the code comprising means for causing a computer to take steps comprising:

displaying a representation of an object;

displaying an annotation for the object;

receiving input from a user specifying movement of said object to a new location;

displaying said object in said new location;

calculating a new location for said annotation such that the spatial relationship between the object and the annotation remains the same as before movement of the object; and

displaying said annotation in said new location.

27) Computer executable code stored on a computer readable medium, the code comprising means for causing a computer to take steps comprising:

displaying a representation of an object;

receiving input from a user specifying the placement of an annotation in a given plane with respect to said object;

determining the type of said annotation, and retrieving annotation placement rules information stored in said system pertaining to said type of annotation; and

determining from said retrieved information whether the plane chosen by the user for said annotation is consistent with said retrieved information.

28) Computer executable code stored on a computer readable medium according to claim 27, said code further comprising means for causing a computer to take steps comprising:

notifying the user that the chosen plane is not consistent with said retrieved information, in the event that the system determines that the plane chosen by the user for said annotation is not consistent with said retrieved information.

29) Computer executable code stored on a computer readable medium according to claim 27, said code further comprising means for causing a computer to take steps comprising:

calculating at least one annotation plane for said annotation consistent with said retrieved information, in the event that the system determines that the plane chosen by the user for said annotation is not consistent with said retrieved information; and

displaying said at least one annotation plane.